

09/936 EC3
9/14/01

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



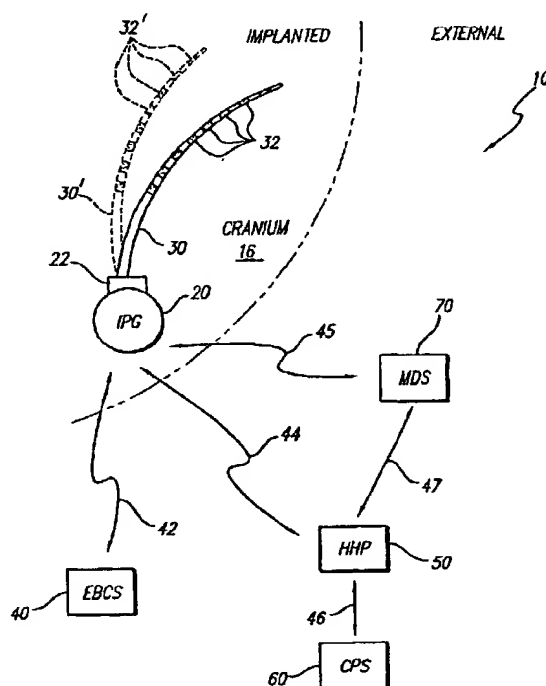
(43) International Publication Date
23 August 2001 (23.08.2001)

PCT

(10) International Publication Number
WO 01/60450 A1

- (51) International Patent Classification⁷: A61N 1/36 (US). MANN, Carla, M. [US/US]; 823 N. Mansfield, Los Angeles, CA 90030 (US).
- (21) International Application Number: PCT/US01/04417
- (22) International Filing Date: 12 February 2001 (12.02.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/182,486 15 February 2000 (15.02.2000) US
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- (81) Designated States (national): AU, CA, JP, US.
- (84) Designated States (regional): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).
- Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEEP BRAIN STIMULATION SYSTEM FOR THE TREATMENT OF PARKINSON'S DISEASE OR OTHER DISORDERS



(57) Abstract: A deep brain stimulation (DBS) system (10) provides a multiplicity of stimulation channels through which stimulation may be delivered deep within the brain of the patient. The DBS system is powered by a rechargeable battery (27). In one embodiment, the system has four channels driving sixteen electrodes (32). The DBS system is easily programmed for use by a clinician using a clinician programming system (60), and further affords a simple but highly advanced hand held programmer (50) control interface through which the patient may easily change stimulation parameters within acceptable limits. The DBS system (10) includes a small, implantable pulse generator (20) that is small enough to be implanted directly in the cranium of the patient, thereby eliminating the long lead wires and tunneling procedures that have been used in the past. Further, the DBS system allows up to two electrode arrays (30, 30') to be attached to the implantable pulse generator (20), thereby eliminating the requirement for implanting two independent implantable pulse generators for bilateral stimulation of deep brain structures.

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